REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1, 2, 6-12 and 15-17 are pending. Claims 1, 2, 6-12 and 15-17 have been rejected.

Claims 1, 7, 8, 10, 11, 12, 15, 16, and 17 have been amended. No claims have been canceled. No claims have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents.

Claims 15 and 17 have been objected to because of the informalities. Claims 15 and 17 have been amended to overcome Examiner's objection.

Claims 1, 2, 6-12, 15 and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,415,323 to McCanne et al. ("McCanne") in view of U.S. Patent No. 6,314,088 to Yamano ("Yamano"), in further view of U.S. Patent No. 6,529,939 to Kraft ("Kraft").

Amended claim 1 reads as follows:

A method, comprising:

> receiving a first request for an information object at an anycast address, wherein the request is received at an information object repository selected according to specified performance metrics by mapping an address of a client to one or more addresses of information object repositories and to one or more addresses of routers that have a best type-of-service distance to the address of the client by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that runs on top of a Transmission Control Protocol (TCP);
>
> resolving the anycast address to a corresponding unicast network address for the information object, wherein the resolving includes transmitting a second request to the anycast address for the corresponding unicast network address in response to the first request, awaiting an anycast resolution response to the second request for a predetermined time; and returning a failure message if the response

to the second request is not received within the predetermined time, wherein the second request is a single IP packet having the anycast network address;

instructing the information object repository to obtain a copy of the information object at the corresponding unicast network address; and

returning the corresponding unicast network address, if the anycast resolution response in response to the second request is received within the predetermined time, the anycast resolution response is a single IP packet having the corresponding unicast network address.

(emphasis added)

Applicants reserve the right to swear behind McCanne.

The Examiner noted that "McCanne does not …disclose that the monitoring protocol "runs on top" of TCP" (Office Action, 01/07/08, p.4).

McCanne discloses a proximity-based redirection system. More specifically, McCanne discloses:

The client initiates a normal application connection using the anycast address, e.g., a Web page request using HTTP over TCP on port 80 or a streaming media request using RTSP over TCP port 554.
As a side effect of the anycast routing infrastructure described above, the client's packets are routed to the nearest ARN advertising reachability to the address, thereby initiating a connection to that ARN. The ARN is prepared to accept requests for each configured service, e.g., Web requests on port 80.
At this point, if the data is available and is of a transactional nature, then the ARN can either respond with the content directly or redirect the requesting client to a service node as follows:
The ARN selects a candidate service node S from its associated service cluster. The selection decision may be based on load and availability information that is maintained from a local monitoring protocol...

(McCanne, col. 15, line 60-col. 16, line 17)(emphasis added)

In particular, McCanne discloses:

In this embodiment, there are three steps to performing wide-area redirection:
ARNs discover candidate service nodes.
ARNs measure network path characteristics between each service node and itself.
ARNs query service nodes for their health.
Given information obtained from the above steps, ARNs can choose the service node that is likely to provide the best quality of service to any requesting client. To do so, each ARN maintains an information database containing load information about some number of eligible service nodes. The ARN consults its information database to determine the most available service node for each client request. To maintain its load information, an ARN can actively probe network paths and service nodes. Alternatively, service nodes can monitor network load and internal load, and report load information to their respective ARNs.

(McCanne, col. 17, lines 45-58)(emphasis added)

Thus, McCanne discloses monitoring load and availability of the service nodes, measuring network path characteristics between each service node and the ARN [anycast referral node], querying service nodes for their health, maintaining the database containing the load information and availability information, and selecting the most available service node based on the information from the database. In contrast, amended claim 1 refers to mapping an address of a client to one or more addresses of information object repositories and to one or more addresses of routers that have a best type-of-service distance to the address of the client by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that runs on top of a Transmission Control Protocol (TCP).

Thus, McCanne fails to disclose, teach, or suggest receiving a first request for an information object at an anycast address, wherein the request is received at an information object repository selected according to specified performance metrics by mapping an address of a client to one or more addresses of information object repositories and to one or more addresses of routers that have a best type-of-service distance to the address of the client by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that runs on top of a Transmission Control Protocol (TCP), as recited in amended claim 1.

Further, McCanne discloses:

> A user initiates a content request, e.g., by clicking on a Web link represented as a URL.
> The client resolves the DNS name of the resource that the URL references. This name ultimately resolves to an anycast address that was administered by the authority (e.g., www.acme.com is a CNAME for any-10-1-18.27.cbb.net).

(McCanne, col. 15, lines 59-65)(emphasis added)

In particular, McCanne discloses:

> The ARN performs an application-specific dialogue with S as necessary in preparation for the client C to attach to S. For example, in the case of live broadcast streaming media, the ARN might indicate the broadcast channel upon which S should tune in to via a request to the CBB overlay network.

> As part of this dialogue, S may return information to the ARN that is required to properly redirect C to S. Whether this information is present and the nature of that information is specific to the particular service requested.

(McCanne, col. 16, lines 17-26)(emphasis added)

The portion of McCanne cited by the Examiner (col. 15, lines 61-65) discloses resolving the DNS name to an anycast address, in contrast to resolving an anycast address to a unicast network address, as recited in amended claim 1.

Further, the portion of McCanne cited by the Examiner (col. 16, lines 17-26) merely discloses that ARN [anycast referral node] sends a request that indicates the channel at which [service node] S needs to tune, S returns information that is required to properly redirect the client to the service node (S). In contrast, amended claim 1 refers to transmitting a second request to the anycast address for the corresponding unicast network address in response to the first request for an information object at an anycast address.

Thus, McCanne fails to disclose, teach or suggest resolving the anycast address to a corresponding unicast network address for the information object, wherein the resolving includes transmitting a second request to the anycast address for the corresponding unicast network address in response to the first request, awaiting an anycast resolution response to the second request for a predetermined time; and returning a failure message if the response to the second request is not received within the predetermined time, wherein the second request is a single IP packet having the anycast network address, as recited in amended claim 1.

It is respectfully submitted that none of the references cited by the Examiner teach or suggest a combination with each other. McCanne teaches the redirection system for providing the information to the client. Kraft, in contrast, discloses user user-initiated maintenance of document locators. Yamano, in contrast, discloses the system for hunting through connection-

oriented network for client's data. It would be impermissible hindsight, based on applicants' own disclosure to combine McCann, Kraft, and Yamano.

Furthermore, even if the maintenance of document locators of Kraft and the system hunting for the client's data were incorporated into the redirection system of McCanne, such a combination would still lack receiving a first request for an information object at an anycast address, wherein the request is received at an information object repository selected according to specified performance metrics by mapping an address of a client to one or more addresses of information object repositories using a Web Information Locator by Distance (WILD) communication protocol that runs on top of a Transmission Control Protocol (TCP), as recited in amended claim 1.

Furthermore, even if the maintenance of document locators of Kraft and the system hunting for the client's data were incorporated into the redirection system of McCanne, such a combination would still lack resolving the anycast address to a corresponding unicast network address for the information object, wherein the resolving includes transmitting a second request to the anycast address for the corresponding unicast network address in response to the first request, awaiting an anycast resolution response to the second request for a predetermined time; and returning a failure message if the response to the second request is not received within the predetermined time, wherein the second request is a single IP packet having the anycast network address, as recited in amended claim 1.

Therefore, applicants respectfully submit that claim1, as amended, is not obvious under 35 U.S.C. § 103(a) over McCanne, in view of Yamano, and further in view of Kraft.

Given that claims 2, 6-12, 15 and 16 contain limitations that are similar to those discussed with respect to amended claim 1, applicants respectfully submit that claims 2, 6-12, 15 and 16 are not obvious under 35 U.S.C. § 103(a) over McCanne, in view of Yamano, and further in view of Kraft.

Claim 17 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over McCanne, Yamano and Kraft in view of U.S. Patent No. 6,611,872 to McCanne ("McCanne.2"). Applicants reserve the right to swear behind McCanne, Yamano, Kraft, and McCanne.2.

It is respectfully submitted that none of the references cited by the Examiner teach or suggest a combination with each other. McCanne teaches the redirection system for providing the information to the client. Kraft, in contrast, teaches user user-initiated maintenance of document locators. Yamano, in contrast, teaches the system for hunting through connection-oriented network for client's data. McCanne.2 teaches multicast communication. It would be impermissible hindsight, based on applicants' own disclosure to combine McCann, Kraft, Yamano, and McCanne.2.

As set forth above, McCanne discloses monitoring the load and availability of the service nodes, maintaining the database containing the load information, and consulting the database to determine the most available service node. In contrast, amended claim 10 refers to an information object repository configured to receive the request for the information object, wherein the information object repository is selected according to specified performance metrics by mapping an address of a client to one or more addresses of information object repositories mapping an address of a client to one or more addresses of information object repositories and to one or more addresses of routers that have a best type-of-service distance to the address of the client by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that runs on top of a Transmission Control Protocol (TCP).

Further, as set forth above, McCanne merely discloses that ARN [anycast referral node] sends a request that indicates the channel at which [service node] S needs to tune, S returns information that is required to properly redirect the client to the service node (S). In contrast, amended claim 10 refers to an information object repository configured to resolve the network layer anycast address into a network layer unicast address that includes transmitting a second

request to the network layer anycast address for the network layer unicast address in response to the first request for an information object, to receive an anycast resolution response in response to the second request to resolve the network layer anycast address.

Furthermore, even if the multicast communication of McCanne.2, maintenance of document locators of Kraft and the system hunting for the client's data were incorporated into the redirection system of McCanne, such a combination would still lack an information object repository configured to resolve the network layer anycast address into a network layer unicast address that includes transmitting a second request to the network layer anycast address for the network layer unicast address in response to the first request for an information object, and to receive an anycast resolution response in response to the second request to resolve the network layer anycast address, as recited in amended claim 10.

Furthermore, even if the multicast communication of McCanne.2, the maintenance of document locators of Kraft and the system hunting for the client's data were incorporated into the redirection system of McCanne, such a combination would still lack the information object repository that is selected according to specified performance metrics and to one or more addresses of routers that have a best type-of-service distance to the address of the client by executing a Web Information Locator by Distance (WILD) communication protocol between the routers that runs on top of a Transmission Control Protocol (TCP), as recited in amended claim 10.

Given that claim 17 depends from amended claim 10, and add additional limitations, applicants respectfully submit that claim 17 is not obvious under 35 U.S.C. § 103(a) over McCanne, in view of Yamano, in view of Kraft, and further in view of McCanne.2.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome.

If there are any additional charges, please charge Deposit Account No. 022666.

Respectfully submitted,

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